

in regard to mixture A, constituents A1 + A3 where constituent A1 is platinum in the form of a platinum complex or compound and constituent A3 consists of a combination of FeO and Fe<sub>2</sub>O<sub>3</sub>;

in regard to mixture B, mixture B consisting of at least one of: constituents B1 + B2 where constituent B1 has the meaning of constituent A1 and constituent B2 comprises cerium (IV) oxide and/or hydroxide; and

constituents B1 + B3 where constituent B1 has the meaning of constituent A1 and constituent B3 has the meaning of a combination of cerium (IV) oxide and/or hydroxide and titanium oxide TiO<sub>2</sub>; or

in regard to mixture C, constituents C1 + C2 where constituent C1 has the meaning of constituent A1 and constituent C2 consists of a combination of constituent B3 and constituent A3;

in constituent A3, the ratio of the amount by weight of FeO to that of Fe<sub>2</sub>O<sub>3</sub> lies within the range going from 0.1:1 to 9:1;

in constituent B3, the ratio of the amount by weight of cerium (IV) oxide and/or hydroxide to that of TiO<sub>2</sub> lies within the range going from 0.6:1 to 6:1;

in constituent C2, the ratio of the amount by weight of constituent A3 to that of constituent B3 lies within the range going from 0.02:1 to 1:1;

in a polyorganosiloxane composition D comprising an alkenylsilyl group-carrying constituent and a hydrosilyl group-carrying constituent, either crosslinkable at room temperature or with the heat from polyaddition reactions in the presence of a platinum catalyst by reactions between the alkenylsilyl and hydrosilyl groups; and

D1

SUB  
E1

the amounts of the various constituents A1, A3, B1, B2, B3, C1 and C2 lie within the ranges mentioned below;

D1 the amount of platinum, expressed in parts by weight of elemental platinum, lies within the range going from 1 to 250 ppm with respect to the total weight of the polyorganosiloxane constituent(s) of the curable compositions D; and

the amounts of constituents A3, B2, B3 and C2 of mixtures A, B and C, expressed in parts by weight of the constituent, lie within the range going from 0.5 to 30 parts by weight per 100 parts of the polyorganosiloxane constituent(s) of the curable compositions D.

2. (Three-Times Amended) The method according to claim 11, wherein the curable polyorganosiloxane compositions D, presented as one or more packages, contain a main constituent formed from one or more polyorganosiloxane constituents, and a suitable catalyst.

P2 6. (Three-Times Amended) The method according to claim 2, wherein the polyorganosiloxane compositions D comprise one-component or two-component compositions crosslinkable with heat from polyaddition reactions, and comprising at least one vinyl-containing polydiorganosiloxane reactant (a), the viscosity of the vinyl-containing polydiorganosiloxane reactant (a) lies within the range going from a value greater than 100,000 mPa.s to 500,000 mPa.s.

*Please add the following new claims:*

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E7  
14. (New) The method of claim 2, wherein the polyorganosiloxane composition D further comprises one or more compounds comprising: reinforcing, semi-reinforcing, or bulking fillers; fillers serving to modify the rheology of the curable compositions; crosslinking agents; adhesion promoters; plasticizers; catalysts; inhibitors; and colorants.

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15. (New) The composition of claim 1, wherein the polyorganosiloxane composition D is in the form of a silicone elastomer comprising crosslinked alkenylsilyl group-carrying and hydroalkenyl group-carrying constituents.

16. (New) A composition for enhancing the arc-tracking and arc-erosion resistance properties of an article comprising:

an effective amount of a mixture A, B or C formed from:

in regard to mixture A, constituents A1 + A3 where constituent A1 is platinum in the form of a platinum complex or compound and constituent A3 consists of a combination of FeO and Fe<sub>2</sub>O<sub>3</sub>;

in regard to mixture B, mixture B consisting of at least one of: constituents B1 + B2 where constituent B1 has the meaning of constituent A1 and constituent B2 comprises cerium (IV) oxide and/or hydroxide; and

constituents B1 + B3 where constituent B1 has the meaning of constituent A1 and constituent B3 has the meaning of a combination of cerium (IV) oxide and/or hydroxide and titanium oxide TiO<sub>2</sub>; or

in regard to mixture C, constituents C1 + C2 where constituent C1 has the meaning of constituent A1 and constituent C2 consists of a combination of constituent B3 and constituent A3;

in constituent A3, the ratio of the amount by weight of FeO to that of Fe<sub>2</sub>O<sub>3</sub> lies within the range going from 0.1:1 to 9:1;

in constituent B3, the ratio of the amount by weight of cerium (IV) oxide and/or hydroxide to that of TiO<sub>2</sub> lies within the range going from 0.6:1 to 6:1;

in constituent C2, the ratio of the amount by weight of constituent A3 to that of constituent B3 lies within the range going from 0.02:1 to 1:1;

in a polyorganosiloxane composition D comprising a one-component or two component composition crosslinkable at room temperature or with heat from polyaddition reactions, the composition (D) comprises:

(a) 100 parts by weight of at least one polydiorganosiloxane comprising linear homopolymers or copolymers having at least 2 vinyl groups per molecule, these vinyl groups being linked to different silicon atoms and located in the chain and/or at the chain ends, the other organic radicals of which, linked to the silicon atoms, are chosen from methyl, ethyl and phenyl radicals, at least 60 mol% of these other radicals being methyl radicals, and having a viscosity ranging from 400 to 100,000 mPa.s at 25°C;

(b) at least one polyorganohydrosiloxane chosen from linear or cyclic homopolymers and copolymers having at least 2 hydrogen atoms per

D3

D3  
molecule, these hydrogen atoms being linked to different silicon atoms and the organic radicals of which, linked to the silicon atoms, are chosen from methyl, ethyl and phenyl radicals, at least 60 mol% of these radicals being methyl radicals, and having a viscosity ranging from 5 to 1000 mPa.s at 25°C, reactant (b) being used in an amount such that the molar ratio of the hydride functional groups of (b) to the vinyl groups of (a) is between 1.1 and 4;

(c) a catalytically effective amount of a platinum catalyst;

(d) 0 to 120 part(s) by weight of siliceous filler(s) per 100 parts by weight of the combination of polyorganosiloxanes (a) + (b); and

the amounts of the various constituents A1, A3, B1, B2, B3, C1 and C2 lie within the ranges mentioned below;

the amount of platinum, expressed in parts by weight of elemental platinum, lies within the range going from 1 to 250 ppm with respect to the total weight of the polyorganosiloxane constituent(s) of the curable compositions D; and

the amounts of constituents A3, B2, B3 and C2 of mixtures A, B and C, expressed in parts by weight of the constituent, lie within the range going from 0.5 to 30 parts by weight per 100 parts of the polyorganosiloxane constituent(s) of the curable compositions D.

17. (New) A method of enhancing the arc-tracking and arc-erosion resistance properties of an article, comprising incorporating an effective amount of the composition of claim 16 into said article.

18. (New) A composition for enhancing the arc-tracking and arc-erosion resistance properties of an article comprising:

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an effective amount of a mixture A, B or C formed from:

in regard to mixture A, constituents A1 + A3 where constituent A1 is platinum in the form of a platinum complex or compound and constituent A3 consists of a combination of FeO and Fe<sub>2</sub>O<sub>3</sub>;

in regard to mixture B, mixture B consisting of at least one of: constituents B1 + B2 where constituent B1 has the meaning of constituent A1 and constituent B2 comprises cerium (IV) oxide and/or hydroxide; and

constituents B1 + B3 where constituent B1 has the meaning of constituent A1 and constituent B3 has the meaning of a combination of cerium (IV) oxide and/or hydroxide and titanium oxide TiO<sub>2</sub>; or

in regard to mixture C, constituents C1 + C2 where constituent C1 has the meaning of constituent A1 and constituent C2 consists of a combination of constituent B3 and constituent A3;

in constituent A3, the ratio of the amount by weight of FeO to that of Fe<sub>2</sub>O<sub>3</sub> lies within the range going from 0.1:1 to 9:1;

in constituent B3, the ratio of the amount by weight of cerium (IV) oxide and/or hydroxide to that of  $\text{TiO}_2$  lies within the range going from 0.6:1 to 6:1;  
in constituent C2, the ratio of the amount by weight of constituent A3 to that of constituent B3 lies within the range going from 0.02:1 to 1:1;  
in a polyorganosiloxane composition D comprising a one-component or two component composition crosslinkable with heat from polyaddition reactions, the composition (D) comprises:

- D3
- (a) 100 parts by weight of at least one polydiorganosiloxane comprising linear homopolymers or copolymers having at least 2 vinyl groups per molecule, these vinyl groups being linked to different silicon atoms and located in the chain and/or at the chain ends, the other organic radicals of which, linked to the silicon atoms, are chosen from methyl, ethyl and phenyl radicals, at least 60 mol% of these other radicals being methyl radicals, and having a viscosity ranging from 100,000 to 500,000 mPa.s at 25°C;
  - (b) at least one polyorganohydrosiloxane chosen from linear or cyclic homopolymers and copolymers having at least 2 hydrogen atoms per molecule, these hydrogen atoms being linked to different silicon atoms and the organic radicals of which, linked to the silicon atoms, are chosen from methyl, ethyl and phenyl radicals, at least 60 mol% of these radicals being methyl radicals, and having a viscosity ranging from 5 to 1000 mPa.s at 25°C, reactant (b) being used in an amount

such that the molar ratio of the hydride functional groups of (b) to the vinyl groups of (a) is between 1.1 and 4;

(c) a catalytically effective amount of a platinum catalyst;

(d) 0 to 120 part(s) by weight of siliceous filler(s) per 100 parts by weight of the combination of polyorganosiloxanes (a) + (b); and

the amounts of the various constituents A1, A3, B1, B2, B3, C1 and C2 lie within the ranges mentioned below;

D3 the amount of platinum, expressed in parts by weight of elemental platinum, lies within the range going from 1 to 250 ppm with respect to the total weight of the polyorganosiloxane constituent(s) of the curable compositions D; and

the amounts of constituents A3, B2, B3 and C2 of mixtures A, B and C, expressed in parts by weight of the constituent, lie within the range going from 0.5 to 30 parts by weight per 100 parts of the polyorganosiloxane constituent(s) of the curable compositions D.

19. (New) A method of enhancing the arc-tracking and arc-erosion resistance properties of an article, comprising incorporating an effective amount of the composition of claim 18 into said article.

20. (New) A composition for enhancing the arc-tracking and arc-erosion resistance properties of an article comprising:

an effective amount of a mixture A, B or C formed from:



in regard to mixture A, constituents A1 + A3 where constituent A1 is platinum in the form of a platinum complex or compound and constituent A3 consists of a combination of FeO and Fe<sub>2</sub>O<sub>3</sub>;

in regard to mixture B, mixture B consisting of at least one of: constituents B1 + B2 where constituent B1 has the meaning of constituent A1 and constituent B2 comprises cerium (IV) oxide and/or hydroxide; and

constituents B1 + B3 where constituent B1 has the meaning of constituent A1 and constituent B3 has the meaning of a combination of cerium (IV) oxide and/or hydroxide and titanium oxide TiO<sub>2</sub>; or

D3 in regard to mixture C, constituents C1 + C2 where constituent C1 has the meaning of constituent A1 and constituent C2 consists of a combination of constituent B3 and constituent A3;

in constituent A3, the ratio of the amount by weight of FeO to that of Fe<sub>2</sub>O<sub>3</sub> lies within the range going from 0.1:1 to 9:1;

in constituent B3, the ratio of the amount by weight of cerium (IV) oxide and/or hydroxide to that of TiO<sub>2</sub> lies within the range going from 0.6:1 to 6:1;

in constituent C2, the ratio of the amount by weight of constituent A3 to that of constituent B3 lies within the range going from 0.02:1 to 1:1;

in a polyorganosiloxane composition D comprising a one-component or two component composition crosslinkable with heat from polyaddition reactions, the composition (D) comprises:

D3  
(a') 100 parts by weight of polydiorganosiloxane gum which is a linear homopolymer or copolymer having at least 2 vinyl groups per molecule, these vinyl groups being linked to different silicon atoms and located in the chain and/or at the chain ends, the other organic radicals of which, linked to the silicon atoms, are chosen from methyl, ethyl and phenyl radicals, at least 60 mol% of these other radicals being methyl radicals, and the said gum having a viscosity of greater than 500,000 mPa.s at 25°C;

(b') at least one polyorganohydrosiloxane chosen from linear, cyclic or network homopolymers and copolymers having at least 3 hydrogen atoms per molecule, these hydrogen atoms being linked to different silicon atoms, and the organic radicals of which, linked to the silicon atoms, are chosen from methyl, ethyl and phenyl radicals, at least 60 mol% of these radicals being methyl radicals, and having a viscosity ranging from 5 to 1000 mPa.s at 25°C, reactant (b') being used in an amount such that the molar ratio of the hydride functional groups of (b') to the vinyl groups of (a') is between 0.4 and 10;

(c') a catalytically effective amount of a platinum catalyst;

(d') 0.5 to 120 parts by weight of siliceous filler(s) per 100 parts by weight of the combination of polyorganosiloxanes (a') + (b'); and

the amounts of the various constituents A1, A3, B1, B2, B3, C1 and C2 lie within the ranges mentioned below;